

### ÉLECTRONIC INFORMATION DISCLOSURE STATEMENT

Electronic Version v18 Stylesheet Version v18.0

> Title of Invention

APPARATUS FOR ELECTRO CHEMICAL DEPOSITION OF COPPER METALLIZATION WITH THE CAPABILITY OF IN-SITU THERMAL ANNEALING

**Application Number:** 

10/686486

Confirmation Number:

8014

First Named Applicant:

**ROBIN CHEUNG** 

Attorney Docket Number: AMAT3421C2

Art Unit:

1753

Search string:

( 3649509 or 3727620 or 3770598 or 4027686 or 4092176 or 4110176 or 4113492 or 4315059 or 4326940 or 4336114 or 4376685 or 4405416 or 4428815 or 4435266 or 4489740 or 4510176 or 4518678 or 4519846 or 4568431 or 4693805 or 4732785 or 4789445 or 4816098 or 4816638 or 5039381 or 5055425 or 5069760 or 5092975 or 5100516 or 5155336 or 5162260 or 5222310 or 5224504 or 5230743 or 20010030101 or 20020000271 or 20020022363 or 20020029961

or 20020037641 or 20020074233 ).pn.

#### **US Patent Documents**

Note: Applicant is not required to submit a paper copy of cited US Patent Documents

	init	Cite.No.	Patent No.	Date	Patentee	Kind	Class	Subclass
	H	) 1	3649509	1972-03-14	MORAWETZ, ET AL.			
		2	3727620	1973-04-17	ORR			
		3	3770598 1973-11-06 CREUTZ				•	
		4	4027686	1977-06-07	SHORTES, ET AL.			
		5	4092176	1978-05-30	KOZAI, ET AL.			
		6	4110176	1978-08-29	CREUTZ, ET AL. (DECEASED)			
		7	4113492	1978-09-12	SATO, ET AL.			
		8	4315059	1982-02-09	RAISTRICK, ET AL.			
		9	4326940	1982-04-27	ECKLES, ET AL.			
	M	10	4336114	1982-06-22	MAYER, ET AL.			
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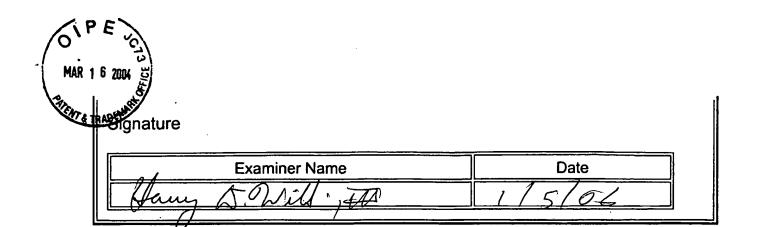


H	11	4376685	1983-03-15	WATSON
	12	4405416	1983-09-20	RAISTRICK, ET AL.
	13	4428815	1984-01-31	POWELL, ET AL.
	14	4435266	1984-03-06	JOHNSTON
	15	4489740	1984-12-25	RATTAN, ET AL.
	16	4510176	1985-04-09	CUTHBERT, ET AL.
	´ 17	4518678	1985-05-21	ALLEN
	18	4519846	1985-05-28	AIGO
	19	4568431	1986-02-04	POLAN, ET AL.
	20	4693805	1987-09-15	QUAZI
	21	4732785	1988-09-15	QUAZI
	22	4789445	1988-12-06	GOFFMAN, ET AL.
	23	4816098	1989-03-28	DAVIS, ET AL.
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	25	5039381	1991-08-13	MULLARKEY
	26	5055425	1991-10-08	LEIBOVITZ, ET AL.
	27	5069760	1991-12-03	TSUKAMOTO, ET AL.
	28	5092975	1992-03-03	YAMAMURA, ET AL.
	29	5100516	1992-03-30	NISHIMURA, ET AL.
	30	5155336	1992-10-13	GRONET, ET AL.
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## **US Published Applications**

Note: Applicant is not required to submit a paper copy of cited US Published Applications

init	Cite.No.	Pub. No.	Date	Applicant	Kind	Class	Subclass
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	2	20020000271	2002-01-03	RITZDORF, ET AL.			
	3	20020022363	2002-02-21	RITZDORF, ET AL.			
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	5	20020037641	2002-03-28	RITZDORF, ET AL.			
TW	6	20020074233	2002-06-20	RITZDORF, ET AL.			





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or 20020004301 or 20020102837 or

20030045095 ).pn.

#### **US Patent Documents**

Note: Applicant is not required to submit a paper copy of cited US Patent Documents

init	Cite.No.	Patent No.	Date	Patentee	Kind	Class	Subclass
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	2	4265943	1981-05-05	GOLDSTEIN, ET AL.			
	3	4786337	1988-11-22	MARTIN			
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	10	5907790	1999-05-25	KELLAM			
m	11	5913147	1999-06-15	DUBIN, ET AL.	;		

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13	6017777	2000-01-25	KIM, ET AL.
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15	6037257	2000-03-14	CHIANG, ET AL.
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17	6174388	2001-01-16	SIKKA, ET AL.
18	6207937	2001-03-27	STODDARD, ET AL.
19	6211495	2001-04-03	STODDARD, ET AL.
20	6222164	2001-04-24	STODDARD, ET AL.
21	6242349	2001-06-05	NOGAMI, ET AL.
22	6258223	2001-07-10	CHEUNG, ET AL.
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24	6296906	2001-10-02	STIMMELL, ET AL.
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26	6544338	2003-04-08	BATCHELDER, ET AL.
27	5431700	1995-07-11	SLOAN
28	6072163	2000-06-06	ARMSTRONG, ET AL.
29	6307184	2001-10-23	WOMACK, ET AL.
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31	6529686	2003-03-04	RAMANAN, ET AL.
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## **US Published Applications**

Note: Applicant is not required to submit a paper copy of cited US Published Applications

init	Cite.No.	Pub. No.	Date	Applicant	Kind	Class	Subclass
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	2	20020102837	2002-08-01	RITZDORF, ET AL.			
10G	3	20030045095	2003-03-06	RITZDORF, ET AL.			

# Signature

Examiner Name	Date		
Jany D. Will the	175/06		



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( 5252807 or 5256274 or 5259407 or 5290361 or 5292393 or 5316974 or 5324684 or 5328589 or 5349978 or 5368711 or 5377425 or 5377708 or 5415890 or 5429733 or 5442235 or 5447615 or 5449447 or 5516412 or 5527739 or 5608943 or 5625170 or 5651865 or 5677244 or 5705223 or 5716207 or 5718813 or 5723028 or 5820692 or 5884009 or 6015749 or 6071388 or 6093291 or 6136163 or 6187152 or 6203582 or 6207005 or 6258220 or 6267853 or 6276072 or 6290865

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#### **US Patent Documents**

Note: Applicant is not required to submit a paper copy of cited US Patent Documents

or 6290933 or 6294059 or 6309520 or

	nit	Cite.No.	Patent No.	Date	Patentee	Kind	Class	Subclass
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	1	2	2 5256274 1993-10-26 PORIS		PORIS			
		3	5259407	1993-11-09	TUCHIDA, ET AL.			
		4	5290361	1994-03-01	HAYASHIDA, ET AL.			•
	5		5292393	1994-03-08	MAYDAN, ET AL.	,		
	6 5316974 1994-05-31		1994-05-31	CRANK	]			
	ho	7 5324684 1994-06-28		KERMANI, ET AL.				
	$\prod$	8	5328589	1994-07-12	MARTIN	•		
	刑	9	5349978	1994-09-27	SAGO, ET AL.			

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Mu	10	5368711	1994-11-29	PORIS
V	11	5377425	1995-01-03	KAWAKAMI, ET AL.
	12	5377708	1995-01-03	BERGMAN, ET AL.
	13	5415890	1995-05-16	KLOIDER, ET AL.
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	15	5442235	1995-08-15	PARRILLO, ET AL.
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	18	5516412	1996-05-14	ANDRICACOS, ET AL.
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	· 22	5651865	1997-07-29	SELLERS
	23	5677244	1997-10-14	VENKATRAMAN
	24	5705223	1998-01-06	BUNKOFSKE
	25	5716207	1998-02-10	MICHINA, ET AL.
	26	5718813	1998-02-17	DRUMMOND, ET AL.
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	30	6015749	2000-01-18	LIU, ET AL.
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	32	6093291	2000-07-25	IZUMI, ET AL
Ш	33	6136163	2000-10-24	CHEUNG, ET AL.
	34	6187152	2001-02-13	TING, ET AL.
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	36	6207005	2001-03-27	HENLEY, ET AL.
	37	6258220	2001-07-10	DORDI, ET AL.
	38	6267853	2001-07-31	DORDI, ET AL.
	39	6276072	2001-08-21	MORAD, ET AL.
	40	6290865	2001-09-18	LLOYD, ET AL.
	41	6290933	2001-09-18	DURGA, ET AL.
	42	6294059	2001-09-25	HONGO, ET AL.
	43	6309520	2001-10-30	WOODRUFF, ET AL.
h	44	6508920	2003-01-21	RITZDORF, ET AL.

Signature

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Examiner Name	Date
Sany D. Will , HT	1/5/06

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SUPPLEMENT ALL INFORMATION DISCLOSURES STATEMENT BY APPLICANT

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Sheet 1 of 2

Application Number	10/686,486
Filing Date	OCT. 15, 2003
First Named Inventor	CHEUNG, ET AL.
Group Art Unit	1753
Examiner Name	UNKNOWN
Attorney Docket Number	AMAT/3421.C2/CMP/ECP/RKK
Submission Date	APRIL 23, 2004

	U.S. PATENT DOCUMENTS					
	Cite		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where	
	No.1				Relevant Passages or Relevant Figures Appear	
	A1	US-				
	A2	US-				
	A3	US-				
	A4	US-				
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	A6	US-				
	A7	US-				
	A8	US-				
	A9	US-		<u> </u>		

		FORE	IGN PATENT I	DOCUMENTS		
Examiner	Cite	Foreign Patent Document	Publication Date	Name of Patentee or	Pages, Columns, Lines,	T⁰
Initials* No.1	Country Code <sup>3</sup> -Number <sup>4</sup> -Kind Coode <sup>5</sup> (if known)	MM-DD-YYYY	Applicant of Cited Document	Where Relevant Passages or Relevant Figures Appear		
HW	B1	EP 0 421 735 A2	04/10/1991	KABUSHIKI KAISHA TOSHIBA		
	B2	EP 0 881 673 A2	12/02/1998	INTERNATIONAL BUSINESS MACHINES CORPORATION		
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, [ )	B11	WO 97/12079	04/03/1997	INTEL CORPORATION		
In	B12	WO 99/40615	08/12/1999	SEMITOOL, INC.		
	B13					

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SUPPLEMENTAL INFORMATION DISCLOSURES STATEMENT BY APPLICANT

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Sheet 2 of 2

ersons are required to respond to a collec-	tion of information unless it displays a valid OMB control hit	HDE
Application Number	10/686,486	
Filing Date	OCT. 15, 2003	
First Named Inventor	CHEUNG, ET AL.	
Group Art Unit	1753	
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		COLOMBO, Wafer Back Surface Film Removal, Central R&D, SGS-Thomson Microelectronics, Agrate, Italy, Spin Tech Technology, 6 pages.		
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